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PROMOTING FARM INVESTMENT FOR SUSTAINABLE INTENSIFICATION OF AFRICAN AGRICULTURE

By

Thomas Reardon, Eric Crawford, Valerie Kelly, and Bocar Diagana*

Food Security II Cooperative Agreement between U.S. Agency for International Development, Global Bureau, Economic Growth Center,
Office of Agriculture and Food Security and Department of Agricultural Economics, Michigan State University

BACKGROUND: For African agricultural productivity to improve, governments and donors must invest in programs and policies that will improve the incentives and capacity of farmers to make investments that increase farm productivity and soil fertility while protecting the environment. With rapid population growth, agriculture must rapidly intensify if African farmers are to meet the rapid growth in demand for food and fiber.

OBJECTIVES: The objectives of this study are to (1) identify factors that stimulate farmer investment in farm capital and improved inputs that are needed for sustainable intensification; (2) review recent evidence on how the relative strength of these factors varies from one setting to another; and (3) recommend policy and program initiatives likely to encourage investment.

FINDINGS: The findings are based on four field studies (in Burkina Faso, Rwanda, Senegal, and Zimbabwe) undertaken by MSU researchers in collaboration with researchers from national research and policy analysis institutions. The case study findings were supplemented by review of other recent field studies. Our recent case studies demonstrate that incentives and capacity to invest in more intensive cropping technologies have declined during the last decade for the following reasons:

- Cuts in subsidies and government-run input distribution programs reduced farmers' incentive

to use fertilizer, improved seed, and animal traction.

- Despite the increasing need for conservation investments, the profitability is still often lacking, or the risk is too high, for farmers to invest. Existing incentives do not incorporate the net benefit to society of these measures.

- Even where the incentive exists, farmers often lack the cash, labor, and knowledge to make investments. Cuts in agricultural credit programs reduced the capacity of farmers to invest in these technologies.

STRATEGIC AND POLICY IMPLICATIONS:

- **Good macroeconomic policies ("getting prices right") are necessary but not sufficient.** Even after overvalued currencies are devalued and markets are liberalized, there remain major policy and structural constraints to farmer investment.

- Identifying cost-effective systems, policies, and public investments to increase the farmer's incentive and capacity to use chemical fertilizer, organic matter, improved seed, and equipment is crucial. Addressing this need will require:

- (1) reestablishment of agricultural support services (input supply, credit, extension, output marketing); cutting these services without reliable

efficient, and widely accessible alternatives quickly undermines African farming;

(2) reduction of high transport costs that make inputs expensive and reduce the competitiveness of farm products;

(3) re-opening the debate on (selective) subsidies for fertilizer and even soil conservation measures that are a net benefit to society;

(4) reevaluation of agricultural research strategies, asking what technologies farmers find usable and attractive **relative** to opportunities off-farm.

● ***Farmers are much more likely to invest in productivity and land protection where they produce cash crops*** (food or non-food). Vertically integrated cash cropping systems (1) often have surer markets for output and for inputs, (2) have a credit program built in, (3) pay well, and pay in cash, (4) come with extension, and (5) directly or indirectly benefit food production. Trying to persuade farmers to make investments or adopt new labor-intensive practices without these five elements is an uphill battle -- even if the investments would be good for the farmers or society in the long run.

● **Livestock husbandry can be a boon to farm investments.** Livestock provide (1) cash income, (2) manure, and (3) income insurance. Mixed farming benefits crop productivity. Nevertheless, pastures are waning under population pressure and there is a need to intensify livestock husbandry through use of stabling and corralling. **Relief-to-development efforts can include building stables and corrals.**

● **Making farmers lives more stable and predictable is crucial to investment.** Land tenure insecurity, political instability, policy caprice, and greatly fluctuating prices undermine investment. Land security raises complex issues. For example, it does not necessarily require land titling.

● **Complementary infrastructure** (built by villages, national governments, or NGOs) is crucial to remove bottlenecks that limit private sector participation and that increase costs of

input and output marketing. Wells to keep windbreaks and gardens alive, culverts to make bunds and fertilizer use practicable, roads to improve farm marketing and input access -- are examples of critical investments that governments and donors need to aim at the key bottlenecks that constrain farm investment.

● **Rural nonfarm businesses** are a crucial source of funds for farm investment, especially with the recent dismantlement of public credit programs. Promotion of these businesses can be designed for maximum spillover to the farm. An example is promoting animal traction equipment manufacture and repair in cash crop areas. **Credit** programs that help nonfarm enterprise can help farm investment indirectly.

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Reardon, Crawford, Kelly, and Diagana are Associate Professor, Professor, Assistant Professor, and doctoral candidate respectively, at Michigan State University. Diagana is also a researcher at the Institut Sénégalais de Recherches Agricoles.

This paper is a summary of a report entitled: "*Promoting Farm Investment for Sustainable Intensification of African Agriculture*," International Development Paper No. 18. It can be obtained by writing to:

MSU Bulletin Office
10-B Agriculture Hall
Michigan State University
East Lansing, Michigan 48824-1039

This paper is also forthcoming as an SD Publication Series technical paper. It can be obtained through USAID's development information system (CDIE) (catalogue number forthcoming).